## PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicants or agent's file reference 1.090.003 WO		FOR FURTHER ACTION See Form PCTAPEAR18					
	International application No. PCT/NL2004/000485		International filing date (day/month/year) 06.07.2004		Priority date (daytmanth/year) 07.07.2003		
	mational Patent Clas 1G5.04	silication (IPC) or r	national classification and	IPG		·	
	officiant DES HOLDING 6	B.V. ET AL.					
1.	This report is the Authority under	e international pro Article 35 and tra	eliminary examination r nsmitted to the applica	eport, established by the according to Article :	nis International PreTimini 36.	ary Examining	
2.	This REPORT of	consists of a total	of 5 sheets, including t	this cover sheet.			
3.	This report is also accompanied by ANNEXES, comprising:						
	a. 🛭 sent to th	ne applicant and t	to the International Bun	eau) a total of 2 sheet	s, as follows:		
ı	and/	els of the descript or sheets contain inistrative instruc	ing rectifications author	ings which have been ized by this Authority (	amended and are the bases Rule 70.16 and Sect	sis of this report ion 607 of the	
	beyo	ots which superse and the disclosure plemental Box.	de earlier sheets, but we in the international ap	mich this Authority con plication as filed, as inc	sidere contain an amend ficated in Item 4 of Box N	imant that goes lo. I and the	
	sequence	e fisting and/or tal	Bureau only) a total of (i bles related thereto, in a Listing (see Section 8)	computer readable for	per of electronic carrier(s) in only, as indicated in the e Instructions).	)) , containing a Supplemental	
4.	This report contains indications relating to the following items:						
	Box No. I	Basis of the opi	inion				
	☐ Box No. II	Priority					
	☐ Box No. III Non-establishment		ent of opinion with rega	t of opinion with regard to novelly, inventive step and industrial applicability			
	Box No. IV	Lack of unity of	invention				
	Box No. V	Reasoned state applicability; cit	ment under Article 35( ations and explanations	<ol> <li>with regard to novel</li> <li>supporting such state</li> </ol>	ly, inventive step or indus ment	itrial	
	Box No. VI	Certain docume					
	Box No. VII		In the International app				
	M Box No. VIII	Certain observa	itions on the Internation	al application			
Date	e of submission of the	demand		Date of completion of the	nis report	· · · · ·	
23.02.2005			21.10.2005				
Name and mailing address of the International			Authorized Officer				
preliminary examining authority:  European Petent Office - P.B. 5818 Patentiaan 2  NL-2280 HV Rijswijk - Pays Bas  Tel. +91 70 340 - 2040 Tx: 31 651 epo ni			Godot, T				
	Fac +317	0 340 - 3016		Telephone No. +31 70	340-3319	-	

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No. PCT/NL2004/000485

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_	Box No. I Basis of the repor					
1.	With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this Item.					
	This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of:					
	☐ international search (under Rules 12.3 and 23.1(b)) ☐ publication of the international application (under Rule 12.4) ☐ international preliminary examination (under Rules 55.2 and/or 55.3)					
<ol><li>With regard to the elements of the international application, this report is based on (replacement sheet have been furnished to the receiving Office in response to an invitation under Article 14 are referred to it report as "originally filed" and are not annexed to this report):</li></ol>						
	Description, Pages					
	1-8	as originally filed				
	Claims, Numbers					
	1-14	received on 23.02.2005 with letter of 22.02.2005				
	Drawings, Sheets					
	1.3-3.3	as originally filed				
	a sequence listing and/or an	ry related table(s) - see Supplemental Box Relating to Sequence Listing				
3.	The amendments have resulted in the cancellation of:					
	☐ the description, pages ☐ the claims, Nos.					
	☐ the drawings, sheetarligs					
	☐ the sequence listing (specify): ☐ any table(s) related to sequence listing (specify):					
	This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).					
	☐ the description, pages ☐ the claims, Nos.	·				
	the drawings, sheets/ligs					
	the sequence listing (spe any table(s) related to se	quence listing (specify):				
	* If item 4 applies, so	me or all of these sheets may be marked "superseded."				

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No. PCT/NL2004/000485

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Yes: Claims No: Claims 1-14

Inventive step (IS)

Yes: Claims No: Claims

1-14

Industrial applicability (IA)

Yes: Claims

1-14

No: Claims

2. Citations and explanations (Rule 70.7):

see separate sheet

#### Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted: see separate sheet

### Box No. VIII Certain observations on the International application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

#### Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:

D1: US-A-4 422 515 (LOVELESS JOHN H) 27 December 1983 (1983-12-27)

D3: EP-A-0 861 648 (BOCK ORTHOPAED IND) 2 September 1998 (1998-09-02)

2. The document D3 is regarded as being the closest prior art to the subject-matter of claim 1, and shows (see column 4, line 13 to column 5, line 34; the references in parentheses applying to this document):

A wheelchair, comprising:

- an assembly of a chair unit for a user and a support base (3) supporting the chair unit, wherein the support base (3) is provided with a number of carrying wheels (1) for carrying the assembly.
- drive means (9,10,11,12,14) connected to the assembly for driving at least one carrying wheel (1), said drive means (9,10,11,12,14) being provided with at least one motor unit (11,12,14) coupled to a carrying wheel (1), said motor unit (11,11,14) at least substantially being arranged in a hub of a carrying wheel (1) for driving, and operating means (7) for operating the drive means (9,10,11,12,14) which are positioned at least partially laterally relative to the chair unit.

The subject-matter of claim-1 differs from this known wheelchair in that the operating means are connected to a wheel shaft, connected to said motor unit received in said hub so that the operation means do not co-rotate with said carrying wheel (see clarity objections of ITEM VIII for the wording in italic).

The subject-matter of claim 1 is therefore new (Article 33(2) PCT).

The problem to be solved by the present invention may be regarded as to select a new position for the connection of the operating means.

The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) because in the prior art it

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International application No.

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is neither disclosed nor hinted upon. The wheelchair of document D1 does not have a motor unit positioned in a hub and its hand rim rotates with the wheel.

Claims 2 to 14 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

#### Re Item VII

#### Certain defects in the international application

- The embodiments of figures 1 and 2 and their corresponding descriptions do not fall within the scope of the present claims.
- Independent claim 1 is not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art (document D1) being placed in the preamble (Rule 6.3(b)(I) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).
- The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

#### Re Item VIII

#### Certain observations on the international application

Contrary to Article 6 PCT, there is inconsistency between the description (page 4, lines 12 to 20 and page 5, lines 30 to 33) and claim 1, concerning the position of the connection of the operating means. According to the description, the operating means is connected to a wheel shaft connected to said motor unit received in said hub so that the operation means do not co-rotate with said carrying wheel.

# IAP12 Rec'd PCT/PTO 0 6 JAN 2006





#### Claims

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- 1. Wheelchair, comprising:
- an assembly of a chair unit for a user and a support base supporting the charges

  unit, wherein the support base is provided with a number of carrying wheels for
  carrying the assembly,
  - drive means connected to the assembly for driving at least one carrying wheel, said drive means being provided with at least one motor unit coupled to a carrying wheel, said motor unit at least substantially being arranged in a hub of a carrying wheel for driving, and
  - operating means for operating the drive means,
     characterized in that the operating means are positioned at least partially laterally
     relative to the chair unit, and that the operating means are connected to a wheel shaft
     received in a hub of at least one carrying wheel.
  - 2. Wheelchair as claimed in claim 1, characterized in that the operating means comprise at least one operating member for the user, wherein the operating member is positioned at least partially laterally relative to the chair unit.
- 20 3. Wheelchair as claimed in claim 2, characterized in that the operating means comprise two operating members positioned on either side of the chair unit.
  - 4. Wheelchair as claimed in claim 2 or 3, characterized in that the operating member is adapted to undergo at least one change in orientation.
  - 5. Wheelchair as claimed in claim 4, characterized in that the operating member is adapted to undergo a first change in orientation for regulating the displacement speed of the wheelchair, and a second change in orientation for manoeuvring of the wheelchair.
- Wheelchair as claimed in claim 4 or 5, characterized in that the operating member is displaceable between at least two extreme positions.









- 7. Wheelchair as claimed in any of the claims 4-6, characterized in that the operating member takes an at least substantially tubular form and is axially rotatable through a determined angle of rotation.
- 5 8. Wheelchair as claimed in any of the claims 4-7, characterized in that the operating means comprise at least one sensor connected to the assembly for sensing the change in orientation of the operating member.
- 9. Wheelchair as claimed in any of the foregoing claims, characterized in that the operating means are adapted for wireless communication with the drive means.
  - 10. Wheelchair as claimed in claim 2, and any of the claims 1, 3-9, characterized in that the drive means are adapted for independent driving of a plurality of carrying wheels, wherein the operating members are each adapted to control a determined driven carrying wheel.
    - 11. Wheelchair as claimed in any of the foregoing claims, characterized in that at least a part of the operating means is positioned on a side of at least one carrying wheel remote from the chair unit.
    - 12. Wheelchair as claimed in any of the foregoing claims, characterized in that the operating means can be locked in at least one position.
- 13.— Wheelchair as claimed in any of the foregoing claims, characterized in that the operating means are releasably connected to the assembly.
  - 14. Operating means for use in a wheelchair as claimed in any of the claims 1-13.



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